Project Overview

Phase I - Assessment

At the conclusion of this phase, we have summarized our assessment of the City's current telecommunications and network infrastructure environment and technology utilization in the form of this Assessment Report. This detailed report has summarized the results of our analysis, including what activities need to occur in order to achieve the goals identified for the project.

This report includes a current operational assessment and an analysis of the following functional areas:

- Current voice/data/video network overview
- Current telephone system configurations and trunking
- CENTREX configuration, dialing plan and cost
- Voice processing capabilities, configuration and cost
- Current network carrier configuration and cost
- Contract obligations
- Public Lighting Department duct infrastructure

Project Overview

Phase II - Network Architecture Alternatives

During this phase of the project, we considered multiple factors impacting the system design. Inputs to establishing alternative designs include:

- ✓ Current telecommunications configurations
- ✓ Current network baseline analysis
- ✓ Equipment existing/certified/trained on by City personnel
- ✓ Current and future high-speed network infrastructure build plans
- ✓ COMCAST cable franchise renewal requirements and right-of-way regulations
- ✓ Planned COMCAST cable plant extensions to increase CATV penetration
- ✓ New services such as, cable modems, broadband, IP telephony, digital interactive video
- ✓ Competitive Local Exchange Carrier (CLEC) initiatives

We assessed the extent to which City multi-media applications impact the network design. We presented the best alternatives to protect the current investment in existing hardware without hindering future capacity.

Project Overview

Phase II - Network Architecture Alternatives

The objectives for an alternative network architecture included an analysis on the following functional areas:

- ✓ Data transmission bandwidth calculations for voice, data & video
- ✓ Cost/benefit analysis of various data network architectures
- ✓ Voice connectivity, Centrex configuration and PBX analysis
- ✓ Impact of data intensive applications via the Internet
- ✓ Video connectivity and impact analysis

Our analysis also included a number of other factors, such as:

- ✓ The quality of performance and ability to provide a high degree of telecommunications & network availability to all City buildings
- ✓ The ability for a new infrastructure to support changes in City requirements
- ✓ The ability to integrate future applications within the WAN environment
- ✓ The risk associated with migration to the new network platform and the cost of appropriate management activities to reduce that risk to an acceptable level